

MORS Workshop

Analytic Support for Maritime Domain Awareness and Counter-Piracy

Working Group 5 *-- Counter-Piracy --*

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WG 5 Purpose/Focus

- Better understand what deterrence and avoidance activities currently work effectively
- Better understand the current and projected costs of actions . . . and no actions
- Identify and transform available and new data into maritime domain awareness actionable intelligence
- Enable acting inside the pirates' decision, staging and attack cycles
- Explore integration, modeling, and predictive methodologies that could provide greater actionable advantages to those vessels that are potential targets of pirates
- Better understand the divisions of labor within Governments to deter/resolve piracy
- Better understand the current respective roles of international Navies and Coast Guards in the most active piracy areas
- Document consensus and recommendations on strategies, activities, and participants to enable efforts to anticipate, dissuade and deter pirates



WG 5 Approach

- Progression of Working Sessions
 - Setting the stage, understanding contexts, and understanding terms
 - Exploring various aspects of piracy situations, from methodologies tried to information sources used
 - Capturing identification of opportunities and actions
 - Information and detection
 - Dissuasion, deterrence, prevention
 - Response
 - Resolution
 - Coordination and collaboration
 - Mission management



WG 5 Approach

- Nagging questions
 - How many data are enough? How many data become too many? . . . And when?
 - As analysts working to better inform a decision, how do the decision makers (and we) define success?
 - What are the appropriate standards for data accuracy, sufficiency, completeness, and timeliness in a given situation?
 - Who . . . What . . . When . . . Where . . . Why . . . How . . . Linkages?



WG 5 Findings – Action Steps Proposed

- Information and detection
 - Conduct Pattern of Life analyses *



WG 5 Findings – Action Steps Proposed

- Dissuasion, Deterrence, Prevention
 - Establish metrics for the venue **
 - Provide persistent access to data
 - Provide access to unclassified timely data (MSCHOA, Wiki) **
 - Establish metadata format options and cross-map data elements as appropriate *
 - View an unsuccessful attack as a precursor trigger



WG 5 Findings – Action Steps Proposed

- Response
 - Reassess/refine response action lists on commercial vessels – broadcast alert triggers are the start of the “golden x minutes” response period; $x = (30 - \text{delay in alert})$



WG 5 Findings – Action Steps Proposed

- Resolution
 - Track situational awareness – vessel and crew status and location

WG 5 Findings – Action Steps Proposed

- Coordination and collaboration
 - Ensure data are in easily storable and recoverable formats
 - Provide automated analyses and alerts where feasible (36 inch pipe problem) **
 - Provide coordinated collection and integration of surveillance data **
 - Enable coordinated multinational analyses
 - Establish networked Communities of Interest with multinational support of servers and management * (US, CAN, UKMTO, CMF, EU, NATO, ONI)



WG 5 Findings – Action Steps Proposed

- Coordination and collaboration (cont.)
 - Establish structured security levels
 - Establish networked real-time analyst networks **
 - Establish a Wiki for Counter-Piracy ** (US, CAN, UKMTO, CMF, EU, NATO, ONI)
 - Establish common regional taxonomies



WG 5 Findings – Action Steps Proposed

- Mission management
 - Establish and enable better and more effective interfaces between policy individuals and analysts and operators (ensuring common understandings of “success” and supporting analyses needed and used)
 - Ensure coordination of metrics **
 - Document assumptions and propose action alternatives
 - CMF start enforcing Exclusive Economic Zone (EEZ) strictures
 - Assess costs and contributions of current and alternative current and proposed future assets (surface/air/other)



WG 5 Findings

Tools and models required

- Dynamic positioning of assets
- Analyses of false positives and false negatives in data and data errors
- Common plot and track repositories
- Hypothesis testing (data limitations) – test assumptions and bounds
- Meteorological feeds and predictions (route vessels toward worse weather and sea states as feasible)
- Modeling impacts of justice efforts (or lack thereof)
- Social science modeling and analyses of clans and of pirate tactics, techniques and practices
- Model and validate characteristics of specific vessels at risk



WG 5 Recommendations

- Establish shared databases with high resolution images and high fidelity of information AND awareness thereof AND sharing thereof
- Enhance the Traffic Tracker in the Arabian Gulf
- Build a Traffic Tracker capability for the Gulf of Aden
- Improved planning and coordination of surveillance assets – including UAVs with mixed payloads and mixed endurance levels
- Ensure continued emphasis on enhanced coordination and integration
- Dynamic suggested rerouting of commercial transits to avoid concentrations of smaller vessels and take advantage of more adverse weather
- Integrate political/economic events into incident data analyses



Immediate Opportunities/Actions

- Improved data reporting and formatting **
 - Coalition forces
 - Commercial vessels



Longer-term Opportunities/Actions

- Integration of military vessel efforts with statecraft and stability operations
- Address piracy through activities ashore
 - Address political and economic stabilities
 - Improved self-regulation
 - Redirected labor forces (a western construct?)
 - Disrupted illicit supply/weapons logistics chains
 - Organic coast guards (within limits)
 - Alternative income streams more widely distributed
- Assess impacts of efforts ashore
- Quantify the costs/values of current and alternative activity chains through end state, including costs of lives



WG 5 Summary

- The piracy problem is but a microcosm of the larger MDA challenge
- Piracy specifics of data and context vary significantly between venues (Somali basin, western coast of South/Central America)
- Lexicons and taxonomies need common understandings in a venue and between participants
- “If the bricks all do their jobs and the building still falls down, the problem’s gotta be in the mortar.”